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Electronics Waste and Spent Lead Acid Batteries Capacity Building Workshop
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Keynote Speech

Buenos días! I'm really happy to be here today at the joint CEC Border 2012 workshop on environmentally sound management of and innovative approaches to electronic wastes. In Border 2012, which I'm sure most of you are familiar with, one of the major goals that EPA and SEMARNAT and the border states and communities have committed ourselves to is building capacity in the border region, and this lead acid battery and electronics workshop that we're having here is a key piece of that capacity building effort. I'm sorry I wasn't able to attend yesterday's session on environmentally sound management of spent lead acid batteries, so I've been told that the presentations yesterday were very well received, and that they offered approaches to effectively manage spent lead acid batteries in an environmentally sound yet economically profitable way. I hope you'll also be able to implement what you learned yesterday, as well as what you learned today and tomorrow on electronic wastes.

First of all, I'd like to thank you for attending these workshops. Electronic waste management is an important issue as recognized by the workshop's high attendance with people coming from as far away as Argentina, Nigeria, and Taiwan. As you know, I think as all of us in this room know, electronic equipment has been a mainstay of our life. I look at the various Blackberries on the desk here, both in the U.S., in Mexico, and Canada, and throughout the rest of the world. In one way or another, electronics are an integral part of almost everything we do and own -- TVs in our homes, computers on our laps and on our desk, and cell phones in our ears. In the U.S., the electronics industry generates billions of dollars a year in profits, and people own nearly 3 billion electronic products. If you stop to think about it, that's an enormous number. For each new product that comes along, often one or more becomes outdated and gets stored in an attic or disposed of. Consequently, with storing or discarding older electronic products, more than ever, in the year 2005, there are some estimates that 130,000 computers were discarded or given away every single day in the U.S. According to the Consumer Electronics Association, along with computers, TVs, VCRs, cell phones, and monitors, an estimated 304 million pieces of electronic equipment were removed from U.S. households in 2005, with about 2/3 of those still in working order. Although used electronics represent less than 2% of the U.S. municipal solid waste stream, if we continue to replace old or outdated electronic equipment at our current rate, that percentage will continue to grow. In 2005, used or unwanted TVs, PCs, peripherals, and cell phones amounted to approximately 1.9-2.2 million tons in the U.S. Of that, about 1.5-1.9 million tons were primarily discarded in landfills, and only 345,000-379,000 tons, that's between 15 and 20% were recycled, so certainly in the U.S., that illustrates the challenge that we face. I don't have comparable statistics for Mexico, or for that matter,

Canada, but clearly electronics and electronic wastes are an important part of the landscape in those countries as well.

Recognizing the need to find better end-of-life management for these products, the United States Environmental Protection Agency, or EPA, and my office in particular, has been working with stakeholders to improve awareness of the need for recovery of electronics and access to safe reuse and recycling options. In this international arena, I'd like to share with you some of the actions EPA has taken over the last few years to increase environmentally sound management of waste, and to increase recycling of consumer electronics. These activities include working with others in the public and private sectors to promote safe and practical ways to increase reuse and recycling of used electronics, working with manufacturers to design products that are easier to recycle, and made with less toxic materials, and with recycled materials. We're also working on public education campaigns to promote the reuse and recycling of electronic equipment.

I'll name several of them of these activities. First, we're developing a better information database on how, where, and to what extent electronics are being recycled, and how else they're being managed in the United States. Last spring, we published a baseline data and statistics study, and we hope to finalize that document this spring, and a lot of the statistics I gave just a few minutes ago came from that study, but as I said, we hope to have a final version of it this spring. This past year, EPA issued a new regulation relating to cathode ray tubes, which of course are found in televisions and computer monitors, not so much anymore, but certainly historically, and as most of you know, these monitors can contain significant amounts of lead, the glass contains the lead. This regulation will make it easier to collect and recycle CRTs within the United States, which is important as the number of discarded CRTs continues to grow as consumers move to flat-screen LCDs and plasma screens.

EPA is also sponsoring a multi-stakeholder dialogue to develop responsible management practices for recycling. The goal certainly is to have this used as a basis for national certification system for electronic recyclers. The dialogue includes representatives of EPA, the Occupational Safety and Health Administration, states, manufacturers, recyclers, and NGOs. When this approach is completed, recyclers will be expected to volunteer to be certified in conformance with responsible recycling practices, this certification would serve as a seal of approval that would indicate the recycler's following practices that would best assure effective protection of human health and environmental safety. I want to say that this, the goal of this kind of effort is critical and important, because one of the main challenges in the electronic recycling arena is to be sure that you have a good handle on where the material is going, and that it ends up in an appropriate location.

We're also working to increase consumer recycling rates for all electronics. We recognize that American consumers need opportunities to recycle electronics that are obsolete or that they no longer want, and we've been working with industry and other partners to promote recycling opportunities. We have a Plug-in to E-Cycling Partnership with electronics manufacturers and retailers to provide opportunities, and the partners and

Plug in to E-Cycling have contributed to electronics recycling infrastructure by supporting municipal programs, by creating their own collection and recycling programs, and by fostering new partnerships with states and communities.

Since the beginning of 2007, and these are just examples, the Staples company retailer in the U.S., launched an ongoing take-back program across the continental U.S. in May 2007, and Staples will accept any computer monitor and PC for a \$10 fee, and peripherals will be accepted at no cost. Staples is not the only retailer that's engaged in this kind of take-back program, but it's certainly something that we want to encourage. Dell and HP, the leading computer manufacturers, in the world, both have aggressive take-back and recycling programs, they differ a little, but they both offer strong opportunities for consumers to return products, no longer wanted products for recycling. Dell, and several states, has a partnership with Goodwill Industries, where Goodwill Industries will take computer which are then sent to recycling by Dell. Another very promising example is Sony teamed up with Waste Management in the U.S. to offer free recycling of Sony televisions at Waste Management depots across the country, and also to collect and offer recycling for other electronics at a fee. The program will be piloted at 75 locations during its first year starting this fall, and they hope to move it to, I believe it's 150 locations shortly there afterwards. The long term goal of this program would be to have a national infrastructure with opportunities for collection near to most Americans.

Overall, the Plug-In program that we have with manufacturers and retailers has been a success, since its beginning just four years ago, approximately 95 million pounds of electronics have been recycled through these voluntary efforts. This year alone, 2006, Plug-In to E-Cycling partners collected more than 34 million pounds of electronics. It's important to keep that the recycling of electronics has important energy benefits and important greenhouse gas reduction benefits. The energy conserved and the greenhouse gas emissions prevented through these recycling efforts is equal to save enough electricity to power 7,000 homes for a year and taking more than 12,000 cars off the road.

Of course, in the U.S., individual states have developed their own programs, and in many cases, regulatory programs, requiring take-back or recycling, or product stewardship. California has been one of the leading states, but there are a number of other states in the U.S. who have developed programs, often along slightly different lines. The state of Washington, Maine, Maryland were among the first, and where we're looking closely at those programs to see what lessons we can learn from the national level.

Before I conclude, I want to mention one more and critical point, and that's the design and manufacturing of electronics. The safe recycling of electronics will depend on better design of electronics, fewer toxic constituents in the materials, and design for recyclability, either in natural plastics used, or ease of disassembling, and these are important considerations to, for any broad recycling program. Within the U.S., EPA has worked with manufacturers, states, recyclers, and NGOs to develop the Electronic Product Environmental Assessment Tool, which goes by the acronym EPEAT. EPEAT was created to meet a growing demand, particularly by large institutional purchasers, for a way to readily identify electronic products that use less toxic materials and less energy,

and that contain more recycled content, and that are more easily recycled. EPEAT's criteria have now been finalized into an Institute of Electrical and Electronics Engineers standard, an American National Standard, and it's currently focused on computers, laptops, and monitors, and we're hoping to extend it to other electronics in the near future. EPA was part of a stakeholder group to develop EPEAT, but now, through a grant, it's overseen independently by a third party, so it's really not an EPA program uniquely anymore, but it's a very important program in promoting purchase of better, safer, electronics.

Another closely related program is EPA's program for Energy Star, which measures the energy use of a range of materials, but electronics being one of the most obvious. Energy Star is helping transform the electronics market today by making energy efficiency a top priority. EPA recently revised Energy Star specifications for desktop and notebook computers, workstations, integrated computers, desktop derived servers, and video game consoles. The new specifications for computers cover the idle mode when the system is running basic software, sleep, and standby, and it also includes internal and central and external power supply efficiency requirements, and power management requirements. These new specifications went into effect in July 2007, and that will help drive down the energy used by consumer electronics. Again, this is a voluntary program, products will have an Energy Star, which means they're energy efficient, and then consumers will have a preference for buying those, and while it's not mandatory, its success in the United States has been significant. EPA is also making the Energy Star label available to external power adaptors that meet EPA's new energy efficiency guidelines, and external power adaptors or power supplies are crucial to the operation of virtually all small electronic devices, and they convert voltage AC electricity from the wall outlet to voltage DC power used to power electronic products like personal data assistants, camcorders, digital cameras, laptops, etc. In the U.S., there are as many as 1.5 billion power adaptors currently used, about 5 for any American, and having traveled down here with a few electronic devices and different adaptors for different ones, I can certainly appreciate the number. On average, Energy Star qualified power adaptors will be 35% more efficient than conventional models.

At EPA, we believe that better environmental performance, whether in design, use, or disposal, should give products a leg up in the marketplace, and that's why we're supporting, within the federal government, the purchase and use of greener electronics. We're an energetic participant in the Federal Electronics Challenge, which is, among federal agencies, a program that encourages federal departments, agencies, and facilities to use the EPA assessment tool to buy environmentally sound electronics. The Federal Electronics Challenge also emphasizes efficient use of electronics, and it also emphasizes sending used electronics to responsible recyclers. The Challenge includes 16 federal agencies now, and 130 individual facilities.

To give a picture overall of what we're shooting for, the federal government's information technology purchasing power amounts to \$60 billion a year within the United States, so that our goal is that we can influence this market significantly to ensure both production of, say, for more recyclable electronics, and more energy efficient use of

electronics, and safe recycling of electronics. If we can use this market and the purchasing power of the federal government, I think has the potential for an important influence on the electronics industry as a whole. Our goal here is to get all federal agencies to participate, and we're also working with states, California, across the border, for example, has also adopted the EPEAT standard in purchasing.

In conclusion, I've provided you with a glimpse of what EPA is doing to address the growing e-waste industry issue. During the next two days, you'll be hearing from Mexican, Canadian, and U.S. speakers who will share with you a wealth of information on how best to manage and recycle electronic wastes. I've looked through the agenda, and it looks like you've got a great suite of speakers, there are a lot of experts here who I think can help all of us understand the issue better and the options that we have. Certainly this is a safe management of electronics, and effective recycling of electronics is a challenge for all of us, it's a challenge in the U.S. as the statistics I indicated illustrate, it's a challenge in Canada, it's a challenge here in Mexico, and I think we have a lot to learn from each other, and therefore, I look forward to this conference over the next day. So together, I think we can help encourage greener electronic product design, better asset management, and recovery of valuable materials so that they can be safely used again. Thank you.